



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,471	12/27/2001	Charles A. Miller	2026.0020000	7770

28393 7590 10/21/2003

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
1100 NEW YORK AVE., N.W.  
WASHINGTON, DC 20005

EXAMINER

NGUYEN, TRUNG Q

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/026,471	MILLER, CHARLES A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Trung Q Nguyen	2829	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-11,18,19,24,25 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,18,19,24,25 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims rejected under 35 U.S.C. 102(b) as being anticipated by Herrell (U.S. 4,860,444).

As to claims 1-6 and 9-11, Herrell et al. disclose in Figs. 1 and 5 a probe elements having an overall package 10, substrate 26 coupled to from a cavity (see Fig. 1; column 5, lines 13-26), die 36, compliant spring like leads 38 via spring contact, at least one coolant port that allows a coolant to enter the package via fluid inlet/outlet ports and all other claimed elements are clearly shown in this reference (from column 4, line 62 to column 5, line 6).

As to claim 7, o-rings are not discussed in the reference of Herrell. However, liquid cooling and seal means 28 of Fig. 1 are shown in the reference. Once such is done, the use of valves and specific seals is notoriously known in the art to control flow and prevent leakage. For the above reasons, the above limitation of claim 7 would have been obvious.

As to claims 18-19, Herrell et al. disclose in Figs. 2, 3 and 8A probe elements having an overall package 10, dies 36 are arranged compactly within the package (see Fig. 1).

As to claims 24-25 and 33, Herrell et al. disclose in Figs. 1-2 and 5 a cooled package having an overall package 10, a coolant circulation system (column 6, lines 4-37) that carries circulating coolant to and from cooled package, substrate 26 coupled to from a cavity (see Fig. 1; column 5, lines 13-26), die 36, compliant spring like leads 38 via spring contact, at least one coolant port that allows a coolant to enter the package via fluid inlet/outlet ports and all other claimed elements are clearly shown in this reference (from column 4, line 62 to column 5, line 6).

### ***Conclusion***


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trung Nguyen whose telephone number is 703-305-4925. The examiner can normally be reached on Monday through Friday, 8:30AM – 5:00PM. The fax numbers for the organization where this application or proceeding is assigned are (703) 872-9306. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cuneo Kamand can be reached at (703) 308-1233.

Application/Control Number: 10/026,471  
Art Unit: 2829

Page 4

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

*Trung Nguyen*  
Patent Examiner  
Group Art Unit 2829  
March 19, 2003

  
**EVAN PERT**  
**PRIMARY EXAMINER**